

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Matt Blunt, Governor • Doyle Childers, Director

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U.S. Environmental Protection Agency
Docket ID No.EPA-HQ-OW-2007-1126
EPA Docket Center (EPA/DC)
Water Docket, MC 2822T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Mr. Grumbles:

On behalf of the State of Missouri, we thank you for the opportunity to comment on the draft Gulf of Mexico Hypoxia Action Plan.

Missouri strongly supports the reaffirmation of the six overarching principles for addressing nutrient loading. Given the role of non-point sources in nutrient loading, only voluntary programs provide a viable means of reducing loading at the source. Similarly, wetland and other projects that would intercept nutrients need to be constructed or enhanced on lands that are either under the control of state or federal agencies or are voluntarily placed into wetland programs by private parties.

We salute the continued focus on helping agricultural producers to manage nutrients better. Efforts in Missouri have greatly decreased soil erosion and the attendant nutrient loss to streams, though at least some of these efforts appear not to be reflected in the loading data shown in the Action Plan.

We appreciate that the Task Force has clearly delineated some of the remaining uncertainties and areas for continued investigation.

We also appreciate the Task Force's openness about funding. The lack of support for critical parts of the previous Action Plan has significantly delayed progress in both understanding of hypoxia and in actions to reduce hypoxia and address issues related to nutrient loading throughout the basin.

However, the Action Plan suffers from the same weakness as did its predecessor: a lack of field-scale and small watershed data. The loss of US Geological Survey monitoring stations in the basin has caused an increased reliance on modeling to assess the sources of nutrient. In 1999 data from 43 sub-basins were incorporated into the assessment, while the latest USGS

SPARROW model cited in the Action Plan uses data from only 21 sub-basins. While data-based models will play a critical role in assessing the sources and transport of nutrients, the nutrient loading estimates are increasingly divorced from reality on the ground. This disturbing trend needs to be reversed. The Missouri Department of Natural Resources' Water Resources Center has recently coordinated efforts with the USGS to maintain a number of critical stream gages operational in Missouri. We hope that similar efforts can be launched in other states to provide the data necessary to support critical analyses. It is equally, if not more, important that the federal government reverse recent reductions in its support of water quality monitoring activities.

While we are very aware of the need to protect confidentiality, the lack of data at the field to small watershed scale creates a critical gap in our understanding of the sources of nutrients into streams and rivers. The great variety of soil types, agricultural practices and programs to reduce nutrient loss combine to make modeling of individual watersheds extremely difficult in the absence of data from individual watersheds.

The Monitoring, Modeling and Research Report made a convincing case for the need for nested monitoring within the basin, yet the decline in long-term monitoring sites continues, especially on the mid-sized watersheds. This contrasts with the increased monitoring in the gulf that has provided a basis for better models of ocean dynamics and fate and transport of nutrients once they reach the Gulf of Mexico.

It is not clear whether the best information is being used to model nutrient loading. The number of watershed-based activities to improve water quality continues to grow, yet the impact of these projects on local water quality is not consistently incorporated into the models. We will provide three examples from Missouri that cause us to question the loading predicted by the models.

The combined efforts of the Natural Resource Conservation Service, the Missouri Soil and Water Conservation Program, the Missouri Department of Agriculture and Missouri farmers have produced a significant reduction in soil loss of over 158 million tons since 1986 through financial incentives and targeted watershed programs such as the Special Area Land Treatment and Agricultural Non-Point Source programs. The Hypoxia Education and Stewardship Program, administered by the Missouri Department of Agriculture, has increased producer awareness regarding proper fertilizer applications. These programs should have produced a substantial reduction in phosphorus lost into many watersheds that is not reflected in the USGS models that form the basis for the nutrient loading estimates used in the Action Plan.

Similarly, nutrient loading from manure is modeled as having increased significantly in northern Missouri while water quality information does not reflect a growing nutrient loading trend. As early as 2000, Missouri had permitted all of the Concentrated Animal Feeding Operations (CAFO's) that were required to be permitted. These permits, together with the use of better management practices by Missouri animal producers and environmental assistance visits by the Department of Natural Resources, have greatly reduced spills and other incidents that result in the discharge of nutrients to waterways. While the number of CAFO's has continued to increase

in Missouri, as it has in most other states, the number and total volume of discharges from these facilities has decreased dramatically from the mid to late 1990's.

In 1999 the State of Missouri entered into a consent judgment with the largest operator of hog CAFO's in the state. This judgment required the company to invest in next generation technologies to provide a greater degree of environmental performance. Since 1999, the amount of nitrogen that is land applied at those facilities has dropped by nearly 50%, allowing the company to avoid areas of greater slope and greater risk to water quality. Phosphorus also is being managed through improved technologies. The net result of these technological advances is a reduction in nutrients lost to streams and the reduced risk of loss of nutrients to streams even during the larger precipitation events.

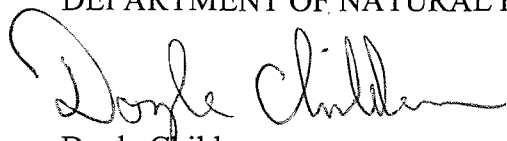
With increased recognition that point sources are also significant contributors of nutrients, efforts must continue on identifying methods for nutrient reduction from major point sources. A fully comprehensive action plan must include a focus on advancing next generation technologies for capturing nutrients in wastewater and developing a marketplace for its use as well as support for the research and development of these technologies. This effort faces significant hurdles involving technology and cost, but would compliment actions taken to reduce non-point source nutrient loading.

We are concerned that the proposed focus on selected watersheds, based on modeled nutrient loading, will affect other water quality programs in the states. Our focus, along with that of every other state that has been delegated authority, is to improve water quality with a focus on meeting state water quality standards and protecting designated uses of our rivers and lakes. Without additional funding for the work proposed in the Action Plan, states will be asked to shift funding from efforts targeting local water quality to those focused on water quality in the gulf. This type of shift is highly unlikely given the requirements of state and federal law.

We look forward to continue our partnership to improve water quality.

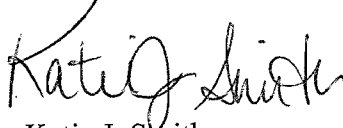
Sincerely,

DEPARTMENT OF NATURAL RESOURCES



Doyle Childers
Director

DEPARTMENT OF AGRICULTURE



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